KIT FOR CORRUGATED COLOR-IT-YOURSELF STRUCTURE

CROSS REFERENCE TO RELATED APPLICATION

[0001] Not applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

FIELD OF THE INVENTION

[0003] The invention relates to corrugated structures and more particularly to a kit for a color-it-yourself corrugated structure.

BACKGROUND OF THE INVENTION

[0004] Foldable play structures have been known for many years. These structures are typically constructed of a cardboard or paperboard material that is folded along predetermined fold lines for storage and shipping and is then unfolded and assembled by the purchaser. Such structures are often designed to be folded into play buildings such as houses, castles, and fire stations, and also to be folded into play vehicles such as automobiles and rockets.

[0005] Foldable structures of these types can be either colorless, pre-printed in colored inks, or designed to be colored by the purchaser using, for example, magic markers, crayons, colored pencils, or other coloring instruments. To provide the best color in the widest range, however, liquid paints have been shown to be the best type of coloring instrument for users applying their own colors.

[0006] While liquid paints are preferred to provide the best color and best coverage for these types of structures, paints provide a particular challenge when intended to be used by children, and even when used by adults. Paints, for example, are easily spilled and splattered in the surrounding environment, and can cause either damage or, at least, a mess

that is difficult and time-consuming to clean. Paints, therefore, pose a challenge that is not encountered by other types of coloring instruments.

[0007] Furthermore, although inexpensive disposable plastic drop cloths are known in the art, and can be used in these applications, such drop cloths suffer from a number of disadvantages. First, plastic drop cloths are slippery, and therefore can actually increase spillage problems with paint bottles. Secondly, when liquid paint is spilled onto a plastic surface, the paint tends to puddle, therefore further increasing the potential for a mess, particularly when the plastic sheet is removed. Additionally, plastic drop cloths can be very thin, and tear easily when subjected to pressure, as, for example, from the edges of corrugated cardboard.

[0008] There remains a need, therefore, for a color-it-yourself structure that can be easily assembled and colored, with a minimal amount of clean up, and at a minimal cost.

BRIEF SUMMARY OF THE INVENTION

[0009] In one aspect, the present invention is a kit for a color-it-yourself structure. The kit includes a corrugated coloring structure, a coloring instrument for coloring the corrugated structure, and a shipping box for enclosing the corrugated structure and the coloring instrument. The shipping box is sized and dimensioned to be usable as a drop cloth when positioned under the corrugated coloring structure, and therefore to limit spillage onto a floor or underlying surface when the structure is colored.

[0010] In another aspect of the invention, the coloring instrument is a liquid paint, and the kit further includes a brush for applying the paint to the corrugated structure. The structure further includes a preprinted line for coloring scenes onto the structure.

[0011] In yet another aspect of the invention, the structure can take the form of a house, a garage, a fort, a fence, a police station, a castle, a car, a fire department, a teepee, and a lemonade stand. Alternatively, the structure can include a figure such as a pumpkin, a

Christmas tree, a horse, a rocket, a dog, a cat, a boy, or a girl. In another embodiment, the structure can be a pet carrier, a dog house, a cat house, or a puppy pen. Alternatively, the structure can provide a US Map, a shadow box, a fireplace, a brick wall, a manger, a window, or a door.

[0012] In another aspect of the invention, a kit is provided that includes a folded corrugated structure, a plurality of liquid paints for coloring the corrugated structure, a brush for applying the liquid paints to the corrugated structure, and a shipping box for enclosing the corrugated structure, the liquid paints, and the brush. The shipping box is adapted to be positioned beneath the corrugated structure when unfolded to provide a floor for the structure.

[0013] In another aspect of the invention, the folded corrugated structure includes both tabs and slots. The tabs are insertable into the slots in order to construct the structure from folded components. The components can include, for example, at least one component foldable to provide four walls, and at least one component for forming a roof.

[0014] In another aspect of the invention, a kit for a color it yourself structure is provided. The kit includes a plurality of corrugated components, the components each comprising at least one tab or at least one slot for interconnecting the corrugated components to provide a structure. Each of the components is foldable along one or more fold line to allow for reducing the size of the components for shipping, and at least one of the fold lines further providing structure when the component is unfolded. The components further include at least one preprinted paint line indicating where paint is to be applied, and a plurality of liquid paints for coloring the corrugated components. A brush for applying the paint is also included. A shipping carton for receiving the corrugated components, the liquid paints, and the brush, is sized and dimensioned to be positionable over the drop cloth and beneath the structure as the corrugated components are folded and interconnected to provide the structure and as the liquid paints are applied to the structure to absorb paint.

[0015] In yet another aspect of the invention, the shipping container can also be positioned beneath or adhered to the structure to form a floor for the structure.

[0016] These and other aspects of the invention will become apparent from the following description. In the description, reference is made to the accompanying drawings which form a part hereof, and in which there is shown a preferred embodiment of the invention. Such embodiment does not necessarily represent the full scope of the invention and reference is made therefore, to the claims herein for interpreting the scope of the invention.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0017] Fig. 1 is an exploded view of a color-it-yourself kit constructed in accordance with the present invention;

[0018] Fig. 2 is a plan view of the kit of Fig. 1 as provided in the shipping container of Fig. 1;

[0019] Fig. 3 is a cutaway view of the package of Fig. 2 taken along line 3-3 of Fig. 2;

[0020] Fig. 4 is a cutaway view of the package of Fig. 2 taken along the line 4-4 of Fig. 2;

[0021] Fig. 5 is a view of a blank or unfolded side portion of a folded structure in accordance with the present invention;

[0022] Fig. 6 is a view of a blank or unfolded side portion of a folded structure in accordance with the present invention;

[0023] Fig. 7 is a view of a blank of an unfolded roof structure portion of the structure;

[0024] Fig. 8 is an unfolded or blank of the chimney for the structure of the present invention;

[0025] Fig. 9 is an exploded view of the structure of the present invention as being assembled;

[0026] Fig. 10 is a plan view of the structure as assembled for coloring

[0027] Fig. 11 is an alternate plan view of the structure as assembled for coloring; and

[0028] Fig. 12 is a plan view of the structure as assembled, and including a floor constructed from the shipping container of Fig. 1.

DETAILED DESCRIPTION OF THE INVENTION

[0029] Referring now to the figures and more particularly to Fig. 1, one embodiment of a kit 10 for a color-it-yourself structure is shown. The kit 10 comprises an outer packaging material or shipping container 12 in which a folded structure 13, one or more liquid paint 22, and one or more brush 26 are provided. The structure 13, as shown, includes two sides or body parts 14 and 16 for constructing the body of the structure, a roof 18, and a chimney 20, each of which are folded and provided in the shipping container 12 as separate components. The shipping carton 12 includes first and second foldable planar shipping structures 11 and 15, each of which include flaps and a plurality of fold lines for providing a multi-layer shipping container 12, and each of which can further be used as drop cloths during the coloring process and/or as a floor for the structure 13, as described below. Preferably, to provide a drop cloth at sufficient size to extend beyond the edge of the structure 13 to provide a perimeter around the structure 13 to absorb paint as described more fully below. Although other forms of paperboard and cardboard material can be used, the shipping carton 12 and structure 13 are preferably constructed of a cardboard or paperboard material such as corrugated Kraft.

[0030] Although as shown here and described below, the structure 13 is a playhouse, it will be apparent that various other types of structures could also be provided, including but not limited to garages, forts, fences, police stations, castles, cars, fire departments, teepees,

and lemonade stands. In addition, the structure can be a pet care product such as a small disposable pet carrier, a dog house, a cat playhouse, or a puppy pen. The structure can also be an institutional or theater display such as a U.S. map, a manger, a shadow box, a window, a fireplace, a door, or brick walls. Also contemplated in the invention are standing figures or "standees" which can include, for example, holiday symbols and scenes, pumpkins, Christmas trees, horses, rockets, dogs, boys, cats, and girls. Various other types of foldable, colorable structures will be apparent to those of skill in the art.

[0031] Referring still to Fig. 1, the shipping container 12 comprises internal and external planar shipping components 11 and 15, respectively, which, as described above, are folded together to provide a multiple-layered container for enclosing the components of the kit 10 for shipping. The external wall 15 includes a generally rectangular section 220, and pairs of flaps extending from both sides, the flaps being separated by fold lines which provide both side edges of the container 12 and a cover of the container 12. Along the length of the rectangular portion 220, flaps 234 and 236 are separated by a fold line from side portions 230 and 232, which are themselves separated by a fold line from the rectangular section 220. Along the width of the rectangular portion 220, a flap 224 is separated by a fold line from a side portion 222, which is separated from the rectangular section 220 by another fold line. A second, mirror-image flap and side portion are provided on the opposing side.

[0032] Similarly, the internal wall 11 includes a rectangular section 200, flaps 214 and 216 separated from the rectangular section 200 by side portions 210 and 212, and flap 204 separated from the rectangular section 200 by a side portion 202. Again, although only one end is described, a mirror image flap and side portion is provided extending from the rectangular section 200 opposite the flap 204. In the internal wall 11, two additional flaps 206 and 208 are provided extending parallel to the side portion 202. A fold line is provided between the flaps 206 and 208 and the side portion 202, and the other sides of the flaps 206

and 208 are cut away, allowing the flaps 206 and 208 to be folded along the fold line to reinforce the structure of the container 12.

[0033] Referring now to Fig. 2, the shipping container 12 is shown as folded for shipping. The flaps 234 and 236 provided on opposing sides of the external wall 15 are folded over to form the top of the container 12, while the side portions 222 and 230 provide the sides of the shipping container 12. Referring now also to Fig. 3, it can be seen that, internally, the shipping container 12 includes multiple layers for internal protection of the structure 13, liquid paints 22, and paint brush 26. At least two layers, the rectangular portions 200 and 220, are provided on the bottom of the container 12, two layers, the side portions 202 and 222, are provided along the side portion, and two or more layers, including the flaps 214 and 236, and the flaps 224 and 204, are provided along the top portion of the container 12. As described above, the flap 206 provided in the internal wall 11 reinforces the corner. Referring now also to Fig. 4, in the corner, the rectangular portions 200 and 220 again provide a two-layer bottom portion, the side portions 202 and 222 provide a two-layer side portion, and the flap 206 reinforces the corner providing an additional layer along the side defined by the side portions 212 and 230.

[0034] Upon receipt of the shipping container 12, the structure 13 is removed and the component parts are unfolded. These components are then assembled to provide a play structure. Referring first to Fig. 5, the body part 14 of the structure 13 is shown in a blank or unfolded condition. The body part 14 comprises two sides of a playhouse including a first rectangular wall section 32 in which first and second windows 33 and 38 are provided, and a second rectangular wall section 30 from which a triangular roof section 28 extends upwardly, and which also includes a window 35. Fold lines 44 and 45, respectively, are provided in each of the wall sections 32 and 30 to allow the body section 14 to be folded for shipping. An additional structural fold line 42 is provided between the rectangular wall section 30 and

rectangular wall section 32. The structural fold line 42 allows the body part 14 to be folded for shipping but also provides a structural corner between the wall sections 30 and 32 for the structure 13 as assembled, as shown below. Fold lines 43 and 60 are further provided along the lower and upper horizontal edges of the rectangular wall sections 32 and 30, respectively; fold lines 55 and 57 are provided along the edges of the triangular roof section 28; and fold line 64 is provided along the vertical edge of the rectangular wall section 32. Each of these fold lines 43, 60, 55, 57 and 64 are provided between structural wall sections 30 or 32 or roof sections 28 and flaps 43, 68, 70, 72, 74 and 76 which are foldable inward to provide structural reinforcements along the edges of the structure 13 when assembled.

[0035] For assembling the structure 13, tabs 50, 51 and 53 are provided extending from the vertical edge of the rectangular wall section 30 and are sized and dimensioned to be received in slots 47, 48, 49 provided in the fold line 64 along the vertical edge of the rectangular wall section 32 of the body part 16 (Fig. 6), as described below. Slots 78 and 80 are also provided in the horizontal upper edge of the rectangular wall section 32, and slots 62 and 63 are provided in the triangular wall section 28. These slots 78, 80, 62, and 63 are sized and dimensioned to receive tabs extending from the roof section 18, as described below.

[0036] As shown, the body part 14 includes preprinted lines 52 which provide a scene to be colored with the liquid paints 22. Here the scene provides shingles in the triangular roof section, shutters around the windows 33, 35 and 38, butterflies, a window box, and other design features which create an attractive playhouse. It will be apparent that these preprinted lines can be varied to provide other types of structures, such as firehouses, police stations, castles, etc., as well as variations in the look of the playhouse. Variations can include, for example, gingerbread houses, haunted houses, etc. Furthermore, the body part 14 can be provided as a "blank" to which paint is applied without any preplanned scene.

[0037] Referring now to Fig. 6, the blank or unfolded body part 16 is shown. The body part 16 is constructed almost identically to the body part 14 and, where appropriate, the same reference numerals have been used. As described with reference to the body part 14, the body part 16 includes first and second rectangular wall sections 30 and 32, respectively, a triangular roof section 28 extending upwardly from the rectangular wall section 32, a structural fold line 42 provided between the rectangular wall section 30 and the rectangular wall section 32, shipping fold lines 44 and 45 for folding the body part 16 for shipping, fold lines 43, 55, 57, 60, and 64 separating the wall sections 30 and 32 and roof section 28 from flaps 46, 68, 70, 72, 74, and 76 provided along the upper horizontal edge, the lower horizontal edge, and the vertical edge of the rectangular wall section 32, along the lower horizontal edge of the rectangular wall section 30, and along the angled upper edges of the triangular roof section 28.

[0038] Also as described with reference to the body part 14 slots 47, 48, and 49 are provided in the fold line 64 on the vertical edge of the rectangular wall section 32 and the upper horizontal fold line 60 of the rectangular wall sections 30 and 32. The slots 47, 48, and 49 are sized and dimensioned to receive tabs 50, 51 and 53 extending from the vertical edge of the rectangular wall section 30, while slots 62, 63, 78 and 80 provided in the triangular roof section 28 and wall section 30 receive tabs extending from the roof section 18, as described below. While the body part 16 is similar to the body part 14, here the rectangular wall section 32 includes one window 38 and a door 36. The door 36 includes a score line 37 along the upper and lower horizontal edges and along a vertical edge, and a fold line 39 provided in the opposing vertical edge. The score lines 37 and fold line 39 provide a door 36 which can be hingedly rotated along the fold line 39 to selectively open and close the door for access to the inside of the structure 13. The preprinted lines 52 in the body part 16 provide

design elements for a playhouse, as described with reference to the body part 14, and here include, for example, a mailbox, a bicycle, and an address, as shown.

[0039] Referring now to Fig. 7, the roof section 18 is shown in a blank or unfolded condition. The roof 18 is generally rectangular and includes a structural fold line 82 substantially through the center of the roof section 18. As described below, the roof is bent along the structural fold line to conform the shape of the roof 18 to the triangular roof section 28 (Figs. 5 and 6) for assembly. Shipping fold lines 86 and 84 are provided between the structural fold line 82 and each of the opposing outer edges of the rectangular roof 18, and allows the size of the roof 18 to be reduced for shipping. Tabs 88, 90, 92, 94, 96, 98, 100, and 102 extend in pairs from each side of the roof section 18 and are sized and dimensioned to be received in the slots 62, 63, 78, and 80 in each of the body parts 14 and 16, as described below. The roof 18 can also include preprinted lines 52, which, shown here, provide a depiction of shingles of the roof and other design elements such as a squirrel and/or a bird. As described above, the roof section can also be a blank surface for painting.

[0040] Referring now to Fig. 8 the chimney 20 is shown in an unfolded condition. The chimney 20 comprises four substantially rectangular sections 120, 122, 124, and 126. The sections 122 and 124 each include a triangular cutout 130 and 132 sized and dimensioned to receive the roof 18 when assembled, as described below. Structural fold lines 114, 116, and 118 are provided between adjacent pairs of rectangular sections. Tabs 110 and 112 extend from a vertical edge of the section 126 and mating slots 104, 106 are provided in a fold line 107 on the opposing end from which a flap 109 extends. The chimney 20, as shown, again includes a preprinted line 52 providing a "brick" look.

[0041] Referring now to Fig. 9, for assembly, the body parts 14 and 16 (Figs. 5 and 6) are folded such that the flaps 46 and 68 provided along the lower horizontal edges are folded inward to form a base and the rectangular wall sections 30 and 32 of each of the body parts

14 and 16 are folded along the structural fold line 42 to form a substantially 90° corner. The tabs 50, 51, and 53 from the body part 14 are received in the slots 47, 48, and 49 in the body part 16 and the tabs 50, 51, and 53 extending from the vertical edge of the body part 16 are received in the slots 47, 48, and 49 provided along the vertical edge of the body part 14. The flaps 72, 74, and 76 provided along the upper horizontal edges of each of the body parts 14 and 16 and along the roof sections 28 are folded inward towards the center of the structure 13 to reinforce the roof 18. The roof 18 (Fig. 7) is folded along the structural line 82 provided in the center of the section at an angle substantially equivalent to that of the peak of the triangular roof section 28. Tabs 88, 90, 92, 94, 96, 98, 100, and 102 extending from the roof 18 are received in slots 62, 63, 78, and 80 in the triangular roof sections 28 and in the upper horizontal edges of each of the rectangular wall sections 32 of the body parts 14 and 16, respectively. The chimney 20 (Fig. 8) is folded along the structural fold lines 114, 116, and 118 and the tabs 110 and 112 are received in the slots 104 and 106 in the chimney 20 to form a box-like shape in which triangular cutouts 130 and 132 are provided along the lower horizontal edge. The triangle cutouts, as described above, are sized and dimensioned to be received on the roof 18.

[0042] Referring now to Figs. 10 and 11, prior to painting, and either prior to assembly or after assembly, the structure 13 is positionable on a drop cloth constructed from the internal and external walls 11 and 15, which are unfolded and positioned under the structure. The absorbent drop cloth provides protection for the surface below the structure 13 during painting, and additionally provides a stable surface such that a child can paint the structure 13 with the liquid paints 22 with minimal danger of creating a serious mess. The internal and external walls 11 and 15 are sized and dimensioned to cover the surface underlying the structure 13 and to extend to a perimeter beyond the outer edges of the

structure 13, such that a user can stand or sit on the shipping container 12 while painting the structure 13. The shipping container 12 protects the underling surface.

[0043] Although the process has been described as initially assembling the structure 13 and then applying paint 22, it will be apparent that the various parts of the structure 13 could also be painted prior to assembly. In this case each of the parts would be laid flat on the unfolded shipping container 12, painted individually and preferably allowed to dry before assembly. Other variations in this process will be apparent to those of skill in the art.

[0044] Referring now to Fig. 12, the assembled structure 13 is shown as assembled onto one of the planar shipping structures 11 and 15. Here, the flaps from the planar shipping structure 11 have been removed, and the structure 13 has been positioned on, adhered to, or otherwise coupled to the structure 13 to provide an underlying floor.

[0045] The present invention therefore provides a kit for constructing and coloring a color-it-yourself structure while reducing the mess associated with the project. The present invention provides an external shipping carton which, in its unfolded state, is sized and dimensioned to be positioned under the structure 13 or the component parts thereof to act as a drop cloth during coloring, and which is constructed of a more absorbent material as compared to a plastic drop cloth and can absorb at least some of the spilled paint.

[0046] Although the structure has been described as including preprinted paint lines, it will be apparent that the structure 13 can also be provided with blank walls for coloring and painting. Furthermore, although a corrugated material is described, various types of paperboard and cardboard products could be used. Furthermore, although the invention is advantageous when used with liquid paints, various other types of coloring instruments could also be used including, for example, markers, colored pencils, crayons, and chalk. The folded structure 13 can be constructed of paper or cardboard products such as corrugated kraft, paperboard, or similar types of materials.

[0047] Various modifications of these embodiments may be made without departing from the spirit or scope of the following claims. Thus, the claims should be looked to in order to assess the full scope of the invention.